DEPARTMENT OF TRANSPORTATION
DIVISION OF ENGINEERING SERVICES
Office of Structural Materials
Quality Assurance and Source Inspection

Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4
Cty: SF/ALA Rte: 80 PM: 13.2/13.9
File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter
Address: 333 Burma Road
City: Oakland, CA 94607

Report No: WIR-016986
Date Inspected: 31-Aug-2010

Project Name: SAS Superstructure
Prime Contractor: American Bridge/Fluor Enterprises, a JV
Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island

OSM Arrival Time: 1900
OSM Departure Time: 700
Location: Shanghai, China

CWI Name:	See Below	**CWI Present:**	☑ Yes ☐ No
Inspected CWI report:	☐ Yes ☑ No ☐ N/A	**Rod Oven in Use:**	☑ Yes ☐ No ☐ N/A
Electrode to specification:	☑ Yes ☐ No ☐ N/A	**Weld Procedures Followed:**	☑ Yes ☐ No ☐ N/A
Qualified Welders:	☑ Yes ☐ No ☐ N/A	**Verified Joint Fit-up:**	☐ Yes ☑ No ☐ N/A
Approved Drawings:	☑ Yes ☐ No ☐ N/A	**Approved WPS:**	☑ Yes ☐ No ☐ N/A
		Delayed / Cancelled:	☐ Yes ☑ No ☐ N/A

Bridge No: 34-0006
Component: OBG

Summary of Items Observed:
CWI Inspector: Mr. Li Yang

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

OBG Segment Trial Assembly

This QA Inspector observed ZPMC welder Mr. Dai Lu, stencil 048659 used shielded metal arc welding procedure WPS-345-SMAW-4G(4F)-FCM-Repair-1 to make repairs of ultrasonic rejections in weld SEG060A-042. This weld joins OBG segment 10AE bikepath side plate to the bottom plate and the weld repair is being tracked on document B-CWR1864. This CWR document was approved by Caltrans Inspector B239 on 08-31-2010. This QA Inspector measured a welding current of approximately 175 amps, the base material had been preheated with an electric heating element and Mr. Dai Lu appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Jun, stencil 053486 used flux cored welding procedure WPS-B-T-2231-B-U2-F-1 to make weld OBW10C-003. This weld joins OBG segment 10BW to 10CW bottom plates. This QA Inspector observed a welding current of approximately 285 amps and 29.0 volts, the base material had been preheated with electric heating elements and Mr. Wu Jun appeared to be certified to make this weld.

Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhu Ming Jun, stencil 040609 used flux cored welding procedure WPS-B-T-2231-B-U2-F-1 to make weld OBW10C-003. This weld joins OBG segment 10BW to 10CW bottom plates. This QA Inspector observed a welding current of approximately 285 amps and 30.0 volts, the base material had been preheated with electric heating elements and Mr. Zhu Ming Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Qiu Jun, stencil 057333 used shielded metal arc welding procedure specification WPS-B-P-2214-B-U2-FCM-1 to complete weld OBW10A-001. This weld joins the side plates between OBG segment 10BW and 10CW. This QA Inspector observed a welding current of approximately 155 amps, Mr. Xu Nai Jun appeared to be certified to make this weld and the base materials appeared to have been preheated with a torch. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

This QA Inspector observed ZPMC welder Mr. Zhang Yan Jun, stencil 218714 used shielded metal arc procedure WPS-B-P-2113-FCM-1 to make “T” stiffener tack welds between OBG segment 10BW and 10CW “T” stiffener plates. This QA Inspector observed the welding electrodes were being stored in a portable rod oven which is warm to the touch and it was connected to an electric power cable and Mr. Zhang Yan Jun appeared to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Bi Xiaofei, stencil 045204 used shielded metal arc welding procedure specification WPS-B-P-2211-B-U2-F to complete weld OBW9K-009. This weld was located on the counterweight edge plate on OBG segment 9DW. This QA Inspector observed a welding current of approximately 145 amps, Mr. Zhang Qiu Jun appeared to be certified to make this weld and the base materials were preheated with a torch. Items observed on this date appeared to generally comply with applicable contract documents. See the photograph below for additional information.

This QA Inspector observed ZPMC welder Mr. Ma Gui Jun, stencil 041696 used shielded metal arc process to perform tack welding of temporary plates to maintain alignment of OBG 9EW counterweight to the edge plate. This QA Inspector observed Mr. Ma Gui Jun appeared to be certified to make these welds and a torch was used to preheat the base material prior to welding. Items observed on this date appeared to comply with applicable contract documents.

OBG Bay 14

This QA Inspector observed ZPMC welder Mr. He Hanbi, stencil 202122 had recently used flux cored welding process WPS-B-T-2231-TC-U4b-F to make OBG segment 13CW tack weld SEG3015A-001. This butt weld joins bottom plate BP3068A to BP3067A. This QA Inspector observed Mr. He Hanbi appeared to be certified to make these welds and that no welding appeared to be taking place while this QA Inspector was in Bay 14. Items observed on this date appeared to generally comply with applicable contract documents.

WELDING INSPECTION REPORT

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Summary of Conversations:

See Above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer